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ABSTRACT

This research is concerned with the stereotypes of gifted children held by average ability students and by teachers. The results of this study show that gifted boys are viewed positively by their age-mates, whereas gifted girls are quite disliked. Attitudes were elicited from educators familiar with gifted students, and from educators with no personal contact with such students. The findings show a negative stereotype of gifted boys among educators that dissipates on contact, while there is a positive stereotype of gifted girls that disappears after working with them. College courses on the gifted child were used as an intervention technique to change attitudes toward the gifted. Teacher attitudes toward gifted boys improved considerably, whereas attitudes toward gifted girls improved only sightly, suggesting that general information about gifted girls does not have the same effect as personal contact. (Author/JLL)

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# Teacher and Pupil Stereotypes of Gifted Boys and Girls

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In the nineteenth and early twentieth century, the gifted child was commonly seen as socially inept and isolated from his age-mates by his precocious ability. In 1925, when Lewis Terman planned his large-scale study on the gifted child, one of his research concerns was whether or not this image was correct. Using the Stanford-Binet intelligence test, he identified 1528 California school children with IQ's above 140. He then obtained information concerning the social life of these gifted children from their teachers and parents. His data showed that these highly able youths were perceived by the adults who knew them as mature, emotionally stable, and popular with their peers.

Since Terman's time, considerable research has also been done on the attitudes of average-ability students toward gifted children. Since this group forms a large part of the social milieu for a gifted child, their attitudes are quite important. Studies such as those done by Barbe in 1954 and Gallagher in 1958 have shown that gifted students are indeed well liked by their age-mates and socially well integrated. Both of the studies mentioned used sociometric measures for determining the popularity of particular gifted children.

The current research, however, is not concerned with how peers and educators perceive individual precocious youths, but rather with their attitudes toward gifted children in general. This could be considered a contrast between "in-fact" and "in-principle" attitudes, to use Ichheiser's terms. An example would be liking Mary who is the top stu-

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dent in the class which is an in-fact attitude, but disliking smart girls in general which is an in-principle attitude. Besides studying the attitudes of peers and educators, two other points are also investigated. The first one is whether or not there is a difference in attitudes toward gifted boys and gifted girls. Much of the research in the past has either lumped the two sexes together or has studied only attitudes toward boys. Secondly, the effects of an intervention technique designed to improve attitudes toward gifted children is studied.

A group of gifted children was needed to provide a constant stimulus for the attitudes elicited from the average-ability peers and educators. The gifted children used were selected from the Maryland Mathematics Talent Searches run by the Study of Mathematically Precocious Youth or SMPY. This study is conducted at The Johns Hopkins University and is directed by Professor Julian C. Stanley. In 1973 and 1974, SMPY ran talent searches to identify mathematically highly able seventh and eighth graders. To qualify for the talent search, students were required to have scored in the 98th or 99th percentile on national norms of an in-grade mathematics test, such as the Iowa Test of Basic Skills. Those qualifying were then given the mathematical section of the Scholastic Aptitude Test or SAT-M. This difficult test of mathematical reasoning is normally administered to high school juniors and seniors. To score well as a junior high school student, therefore, required great mathematical ability. The highest scorers on the SAT-M were designated the winners group. Forty-seven boys formed the male winners group. To qualify, they had to have scored at least 640 on the SAT-M or at the 96th percentile of high school juniors and seniors. Fifty-one girls formed the female winners group; each had scored at least 600 on the

SAT-M, or at the 98th percentile for female juniors and seniors.

The personality inventory used throughout these studies for measuring attitudes was the Adjective Checklist (ACL) developed by Gough and Heilbrun. This form consists of 300 personality-relevant adjectives arranged in alphabetical order. The subject checks off the adjectives that he or she feels apply to whatever person is being rated. From the ACL, a score can be obtained for favorability and unfavorability of attitude. Seventy-five adjectives constitute the favorable scale and 75 different ones the unfavorable scale. The raw score for each scale is the number of adjectives checked. Raw scores are converted to standard scores to avoid response set problems. In this manner, the mean favorability and unfavorability can be determined for each group of respondents.

One may also consider separately the most frequently checked adjectives from the favorable and unfavorable scales, and from the remaining group of 150 neutral adjectives. Since social desirability influences the choice of adjectives, different criteria are used in selecting the most frequently checked adjectives for each type. Chosen to characterize each responding group were favorable adjectives checked by at least 75% of the group, unfavorable adjectives selected by at least 50% of the group, and neutral adjectives chosen by no less than 25% of the group.

In the first study, the attitudes of average-ability students toward themselves and toward gifted girls and boys was studied. The self concept of average-ability students was sampled by asking two junior high school classes in Baltimore City to fill out the ACL. Thirty-six girls and 40 boys participated, or 76 in all.

The attitudes of average-ability students toward gifted children was obtained by having three other eighth and ninth grade classes in Baltimore City fill out the ACL. To provide a constant stimulus, the students were asked to read either a male or female case sheet based on the SMPY winners groups. The male case sheet was developed by selecting four boys from the SMPY male winners group. The winners' academic achievements such as college courses and test results were then written up. Similarly, four girls were chosen from the SMPY female winners group for the gifted girls case sheet. The average-ability students were then asked to fill out the ACL for what they conceived gifted children to be like. Eighteen girls and 25 boys filled out the form for gifted girls, or 43 total. Twenty-eight girls and 24 boys, or 52 different students, filled out the ACL for gifted boys.

Combining male and female peer attitudes would simplify the presentation of the data. A check showed that there were no significant differences between the attitudes of male and female raters toward themselves, toward gifted boys, or toward gifted girls. An analysis of variance was run separately for the favorable and for the unfavorable scales.

On the favorable scale, there was no significant difference between the self concept of average-ability students and their attitudes toward gifted boys. This was also true for the unfavorable scale. The peers evidently perceive the gifted boys as being neither better nor worse than themselves.

In regard to the most frequently checked adjectives, the peers saw themselves as friendly and active on the favorable scale. The gifted boys, though, were seen as highly intellectual with alert, clever, intelligent, dependable, and clear-thinking being chosen. On the neutral

adjectives, the contrast was between determined, civilized, anxious, talkative, and cautious for the average-ability students and determined, self-confident, sophisticated, sharp-witted, serious, and cautious for the gifted youths. The negative adjectives also showed a difference between the two groups. The peers rated themselves as impatient, argumentative, complaining, careless, and loud, whereas the gifted boys were seen as dull, opinionated, conceited, self-centered, and boastful. An interpretation of these data is that while the average-ability students consider gifted boys as equals on favorableness, there are still qualitative differences in the content of their attitudes.

For the gifted girls, there was also no significant difference between attitudes toward them and the average-ability students' self concepts. On the unfavorable scale, however, the gifted girls were seen much more negatively and the difference was significant. ($p < .001$) Indeed, gifted girls were judged significantly less favorably than were the gifted boys. ($p < .05$) The gifted girls appear to be disliked by their peers.

The favorable adjectives chosen for the gifted girls were similar to those chosen for the gifted boys, e.g., intelligent, clever, and clear thinking. The neutral and unfavorable adjectives selected, though, show the negativity of the peers' attitudes. The most frequently chosen neutral adjective was aggressive and the unfavorable ones were aloof, bossy, careless, conceited, snobbish, show-off, dull, apathetic, self-centered, and fickle. These were much more negative than the unfavorable adjectives used to describe the gifted boys.

In the second study, the attitudes of educators who are unfamiliar with gifted children were compared with those of educators who deal frequently with gifted children. Hereafter, these two groups will be re-

ferred to as the unfamiliar and familiar educators, respectively.

The educators familiar with gifted boys were 137 teachers, guidance counselors, and principals of the SMPY male winners group. They were requested to fill out the ACL for the gifted student of their acquaintance. The educators unfamiliar with the gifted boys were 151 Pennsylvania mathematics teachers, guidance counselors, and principals. These persons were from junior high schools similar to those schools which the male winners attended. The unfamiliar educators from Pennsylvania used the male case sheet as a stimulus when filling out the ACL.

The familiar and unfamiliar educators for the gifted girls were all from the Philadelphia area. The familiar educators for the gifted girls were 27 teachers who taught classes for gifted children. The unfamiliar educators were 30 teachers and school administrators for the same school system with no official contact with gifted girls. They were asked to fill out the ACL using the female case sheet as a stimulus.

On the favorable scale, the unfamiliar educators rated the gifted boys significantly less positively than did the familiar ones. ($p < .05$) On the unfavorable scale the unfamiliar educators were significantly more negative than the familiar ones. ($p < .05$) The data indicate that educators who do not know gifted boys have an unfavorable image of them that is not agreed to by those educators who are personally acquainted with them.

The familiar and unfamiliar educators selected very similar favorable adjectives for the gifted boys. They agreed on the intellectual ability of these students, choosing such adjectives as intelligent, capable, alert, confident, and conscientious.

The familiar group did not select any unfavorable adjectives frequently enough for them to meet the 25% criterion. The unfamiliar educators, though, did select the adjectives argumentative, opinionated, impatient, and interests narrow.

For the gifted girls, familiarity did not make any difference in the ratings on the favorable scale. Interestingly, the familiar educators were significantly more negative ($p < .05$) on the unfavorable scale than were the unfamiliar ones. This would indicate that among the unfamiliar teachers and administrators there is not a negative attitude toward gifted girls, but one may develop on personal contact. This result is quite different from that obtained for gifted boys.

As with the gifted boys, the favorable adjectives selected by the familiar and unfamiliar educators for the gifted girls were very similar. The adjectives chosen emphasized the superior ability of the gifted girls with words such as alert, ambitious, and intelligent. f the neutral adjectives, both groups selected self-confident, determined, and individualistic. The unfamiliar educators, however, did add aggressive. Neither group chose any unfavorable adjective frequently enough to meet the 25% criterion.

In the final study an attempt was made to reproduce the effects of familiarity on the attitudes of educators. A course on the psychology and education of the gifted child was used as the intervention technique to acquaint educators with the characteristics of such students. It was demonstrated previously that attitudes toward gifted boys were more positive if educators knew such a boy personally. The hypothesis is that more favorable attitudes on the part of the educators toward gifted boys would occur as a result of the course. Since the educators of the gif-

ted girls became more negative on contact, this study hypothesizes that an increase in unfavorable attitudes toward them might be a consequence of a class on gifted children. Pre and post measures were used to determine if the knowledge gained from the class altered attitudes toward gifted children.

In 1975 and 1976 six courses on the gifted child were taught in the Baltimore area. Five were at The Johns Hopkins University and one was at Towson State University. Most of the class members were teachers working toward their master of education degrees. Forty-seven persons were given the male case sheet and ACL both before and after the course. Fifty-one different class members were given the ACL and female case sheet both before and after the class. To avoid subjects trying to please the teacher by producing favorable attitudes, students were assured that the course instructor did not see the results of the testing.

Using a dependent-means t-test for the pre and post measures, it was found for the gifted boys that the educators were significantly more favorable ($p < .001$) after the course than they had been before it. Also, the mean score on the unfavorable scale dropped ($p < .01$) after the course. Here again, familiarity had the effect of improving the attitudes of educators toward gifted boys.

The adjectives chosen by the class members for gifted boys before and after the course were quite similar to the ones selected by the unfamiliar and familiar educators. The favorable adjectives emphasized the intellectual nature of the students. The neutral adjectives centered on their determination and individualism. The unfavorable adjective chosen in both the pre and post condition was argumentative, though the frequency of selection had dropped in the post condition.

For the gifted girls, the educators became significantly ($p < .01$) more favorable in attitude after the course. There was no significant difference on the unfavorable scale between the pre and post means. The course, therefore, appears to have had a different effect than did actual contact with gifted girls. The implications are that generalized knowledge of such girls produces a positive image of them, but personal knowledge adds unfavorable elements.

The adjectives checked for the gifted girls were similar in the pre and post conditions and similar to unfamiliar and familiar educators' choices. The favorable adjectives described the intelligence and ability of the gifted girls. In both the pre and post ratings, the class members selected aggressive from the neutral scale, as did the unfamiliar educators. Only the familiar educators did not see these girls as aggressive. Students in the gifted child class frequently selected argumentative from the unfavorable scale both before and after the course.

Some statements may now be made concerning general attitudes toward gifted children.

The average-ability peers of gifted boys seem to accept them, considering them neither better nor worse than themselves. Elements of a negative attitude are present in the educators' image of gifted boys. This negative image, however, dissipates with familiarity with such boys.

Gifted girls face a different set of attitudes. Whereas average-ability peers have no objections to gifted boys, they have quite negative feelings toward gifted girls. The educators of highly able girls start off with a favorable attitude toward them. This attitude was improved still more when supported by course material. Actual contact

with gifted girls, however, seems to lower this positive estimation.

One can say, then, that there exists a negative feeling toward gifted children but that it emanates from different places for gifted boys and girls. It would be interesting to know if teachers' attitudes toward gifted girls is the same in high school as it is in junior high school. Conceivably, giftedness becomes less acceptable in girls as they become older than it is in the lower school grades. Finally, it would appear that attitudes toward gifted children can be affected by educational intervention as well as by direct personal contact with highly able students. This information would be relevant for a school system desiring to ensure positive attitudes in educators involved with programs for gifted children.

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## Footnote

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C. H. Solano -- Teacher and Pupil Stereotypes of Gifted Girls and Boys

Favorable, Neutral, and Unfavorable Adjectives Arranged in Decreasing Order of Frequency

| | Peer Self Attitude | Peer Attitude Gifted Girls | Peer Attitude Gifted Boys | Familiar Educ. Gifted Girls | Unfamiliar Educ. Gifted Girls |
|---|---|---|---|---|---|
| Favorable Adjectives Selected by At Least 75% of the Group | friendly<br>active | intelligent<br>clever<br>clear thinking | alert<br>clever<br>intelligent<br>dependable<br>clear thinking | active<br>alert<br>ambitious<br>capable<br>intelligent<br>independent<br>industrious<br>organized<br>adaptable | intelligent<br>conscientious<br>energetic<br>alert<br>clear thinking<br>logical<br>ambitious<br>confident |
| Neutral Adjectives Selected by At Least 50% of the Group | determined<br>civilized<br>anxious<br>talkative<br>cautious | aggressive<br>serious<br>civilized<br>determined<br>methodical<br>trusting | determined<br>self-confident<br>sophisticated<br>sharp-witted<br>serious<br>cautious | determined<br>individualistic<br>methodical<br>precise<br>thorough<br>initiative<br>self-confident | self-confident<br>determined<br>individualistic<br>aggressive<br>assertive<br>quick<br>thorough |
| Unfavorable Adjectives Selected by At Least 25% of the Group | impatient<br>argumentative<br>complaining<br>careless<br>loud | aloof<br>bossy<br>careless<br>conceited<br>snobbish<br>show-off<br>dull<br>apathetic<br>self-centered<br>fickle | dull<br>opinionated<br>conceited<br>self-centered<br>boastful | | |
| N | 76 | 43 | 52 | 27 | 30 |
| Favorable $\bar{X}$ | 40.3 | 42.7 | 42.4 | 43.6 | 44.3 |
| Unfavorable $\bar{X}$ | 49.3 | 57.1 | 51.4 | 45.8 | 41.7 |

| | Familiar Educ. Gifted Boys | Unfamiliar Educ. Gifted Boys | Pre Gifted Class Gifted Girls | Post Gifted Class Gifted Girls | Pre Gifted Class Gifted Boys | Post Gifted Class Gifted Boys |
|---|---|---|---|---|---|---|
| Favorable Adjectives Selected by At Least 75% of the Group | intelligent<br>capable<br>alert<br>confident<br>dependable<br>conscientious<br>cooperative | alert<br>intelligent<br>capable<br>ambitious<br>clear thinking<br>logical<br>confident<br>industrious<br>conscientious<br>independent | ambitious<br>capable<br>intelligent<br>alert<br>clear thinking<br>confident | capable<br>intelligent<br>alert<br>ambitious<br>logical<br>clear thinking<br>independent<br>confident<br>adaptable<br>active | intelligent<br>alert<br>capable<br>ambitious<br>logical<br>clear thinking<br>industrious<br>active<br>independent | intelligent<br>capable<br>alert<br>ambitious<br>independent<br>clear thinking<br>logical<br>organized<br>resourceful<br>responsible |
| Neutral Adjectives Selected by At Least 50% of the Group | self-confident<br>mannerly<br>determined<br>civilized<br>serious | determined<br>individualistic<br>serious<br>precise<br>thorough<br>methodical<br>aggressive<br>quick<br>persistent<br>assertive | determined<br>self-confident<br>persistent<br>aggressive<br>quick | individualistic<br>self-confident<br>determined<br>thorough<br>initiative<br>aggressive<br>persistent<br>serious<br>assertive<br>quick | determined<br>enthusiastic<br>individualistic<br>enterprising<br>self-confident<br>serious<br>energetic<br>methodical<br>assertive<br>precise | determined<br>self-confident<br>individualistic<br>persistent<br>precise<br>persevering<br>thorough<br>initiative<br>steady<br>quick |
| Unfavorable Adjectives Selected by At Least 25% of the Group | | argumentative<br>opinionated<br>impatient<br>interests narrow | argumentative<br>impatient | opinionated | argumentative | argumentative |
| N | 137 | 151 | 50 | 50 | 47 | 47 |
| Favorable $\bar{X}$ | 50.0 | 45.6 | 42.9 | 49.2 | 44.2 | 50.9 |
| Unfavorable $\bar{X}$ | 44.8 | 48.0 | 45.7 | 43.6 | 44.9 | 40.8 |